

WHAT IS CLAIMED IS:

1. A method of generating a snapshot of first storage that is logically subdivided into a plurality of blocks, the method comprising:
  - 5 - on initiating the snapshot, initially copying to snapshot storage the content of a portion of the first storage that includes at least one block and recording in a copy map a copied indication for each copied block;
  - in response to any write request to a block for which no copied indication has been recorded in the copy map, copying to the snapshot storage the  
10 content of the block, prior to writing to it, and recording in the copy map a copied indication for the copied block; and
  - successively copying to the snapshot storage the content of other blocks for which no copied indication has been recorded in the copy map and recording in the copy map a copied indication for each copied block, until  
15 the content of the plurality of blocks have been copied to the snapshot storage.
2. The method of claim 1, wherein the initially copied storage portion includes any block containing part of an operating system kernel.
- 20 3. The method of claim 1, wherein the copy map is held in the first storage and the initially copied storage portion includes any block containing part of the copy map.
- 25 4. The method of claim 1, wherein the copy map is held separately from the first storage.
5. The method of claim 1, wherein the initially copied storage portion includes any block that can be written to by an IO DMA operation.

6. The method of claim 1, wherein the copy map contains an indicator bit for each block of the first storage.
7. The method of claim 6, wherein an indicator bit is set to form a copied indication for a block.
8. The method of claim 1, wherein the first storage and the second storage are formed from respective parts of a memory.
9. The method of claim 1, wherein the first storage is a memory and the snapshot storage is separate from the memory.
10. The method of claim 8, wherein the memory is a processor main memory.
11. The method of claim 8, wherein each block is a page of the first storage.
12. The method of claim 1, wherein the successive copying to the snapshot storage of the content of other blocks is performed as a background processing task.
13. A computer program comprising program code for generating a snapshot of first storage that is logically subdivided into a plurality of blocks, the program code being operable
  - on initiating the snapshot, initially to copy to snapshot storage the content of a portion of the first storage that includes at least one block and recording in a copy map a copied indication for each copied block;
  - in response to any write request to a block for which no copied indication has been recorded in the copy map, to copy to the snapshot storage the content of the block, prior to writing to it, and to record in the copy map a copied indication for the copied block; and

- successively to copy to the snapshot storage the content of other blocks for which no copied indication has been recorded in the copy map and recording in the copy map a copied indication for each copied block, until the content of the plurality of blocks has been copied to the snapshot storage.

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14. The computer program of claim 13, wherein the initially copied storage portion includes any block containing part of an operating system kernel.
- 10 15. The computer program of claim 13, wherein the copy map is held in the first storage and wherein the initially copied storage portion includes any block containing part of the copy map.
16. The computer program of claim 13, wherein the copy map is held separately from the first storage.
- 15 17. The computer program of claim 13, wherein the initially copied storage portion includes any block that can be written to by an IO DMA operation
- 20 18. The computer program of claim 13, wherein the copy map contains an indicator bit for each block of the first storage and wherein an indicator bit is set to form a copied indication for a block.
19. The computer program of claim 13, wherein the successive copying to the snapshot storage of the content of other blocks is performed as a background processing task.
- 25 20. A computer program product comprising a carrier medium carrying the computer program code of the computer program of claim 13.

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21. A computer system comprising:
- first storage that is logically subdivided into a plurality of blocks;
  - snapshot storage for holding a snapshot of the first storage; and
  - a snapshot generator for generating a snapshot of the first storage, the snapshot generator being operable, on initiating the snapshot
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- initially copying to the snapshot storage the content of a portion of the first storage that includes at least one block and recording in a copy map a copied indication for each copied block;
  - in response to any write request to a block for which no copied
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- indication has been recorded in the copy map, copying to the snapshot storage the content of the block, prior to writing to it, and recording in the copy map a copied indication for the copied block; and
  - successively copying to the snapshot storage the content of other blocks
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- for which no copied indication has been recorded in the copy map and recording in the copy map a copied indication for each copied block, until the content of the plurality of blocks has been copied to the snapshot storage.
22. The computer system of claim 21, wherein the initially copied storage portion
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- includes any block containing part of an operating system kernel.
23. The computer system of claim 21, wherein the copy map is held in the first storage and the initially copied storage portion including any block containing part of the copy map.
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24. The computer system of claim 21, wherein the copy map is held separately from the first storage.
25. The computer system of claim 21, wherein the initially copied storage portion
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- includes any block that can be written to by an IO DMA operation.

26. The computer system of claim 21, wherein the copy map contains an indicator bit for each block of the first storage.
- 5 27. The computer system of claim 21, wherein an indicator bit is set to form a copied indication for a block.
28. The computer system of claim 21, wherein the first storage and the second storage are formed from respective parts of a memory.
- 10 29. The computer system of claim 21, wherein the first storage is a memory and the snapshot storage is separate from the memory.
30. The computer system of claim 28, wherein the memory is a processor main memory.
- 15 31. The computer system of claim 28, wherein each block is a page of the first storage.
- 20 32. The computer system of claim 21, wherein the successive copying to the snapshot storage of the content of other blocks is performed as a background processing task.